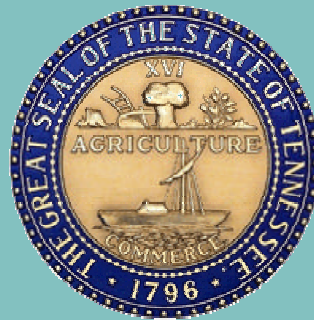




Early Action Compacts



**Tennessee Department of Environment and
Conservation**

Division of Air Pollution Control

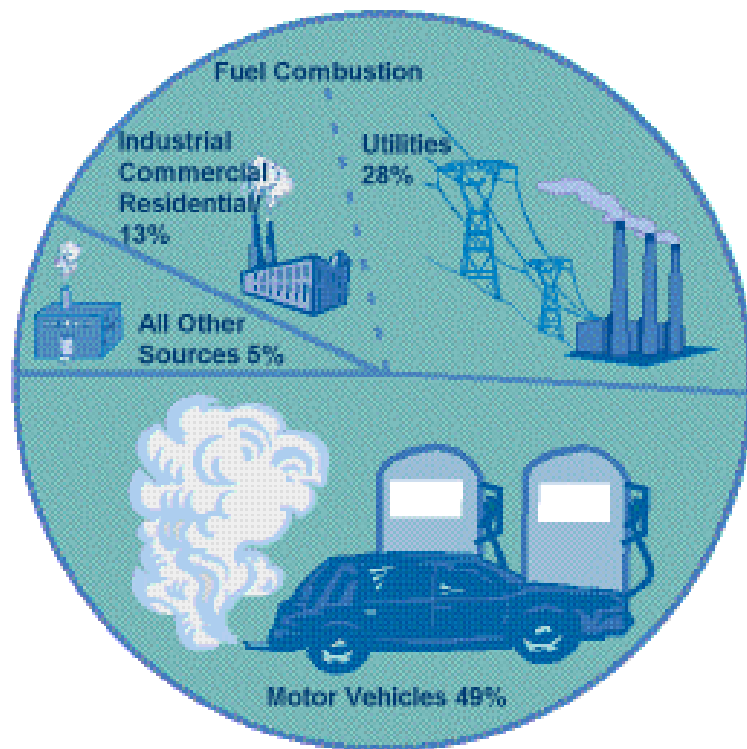
*Ozone is a colorless gas that is:
“Good up high, bad nearby”*



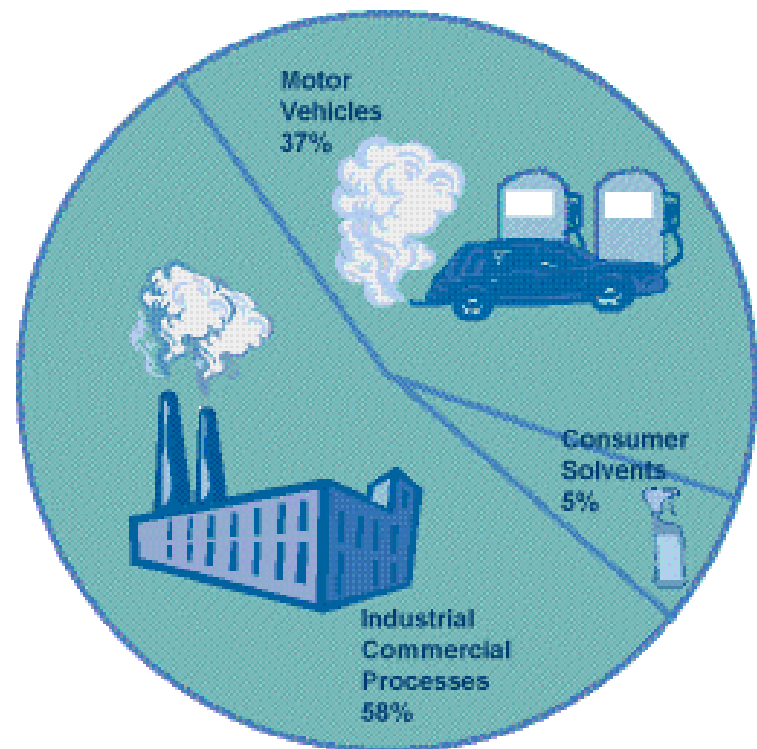
Source: www.epa.gov

What causes nearby ozone?

VOCs + NO_x + certain weather = ozone



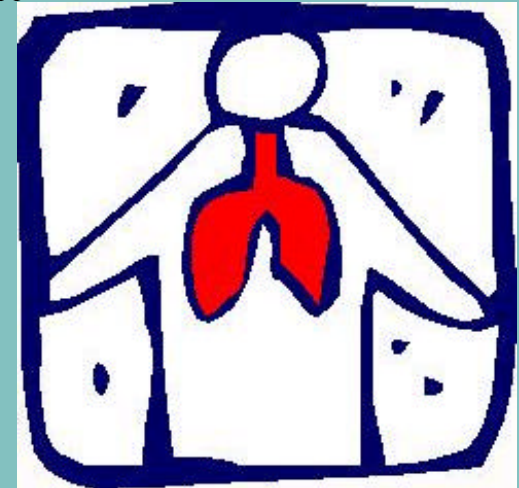
Sources of NO_x



Sources of VOC

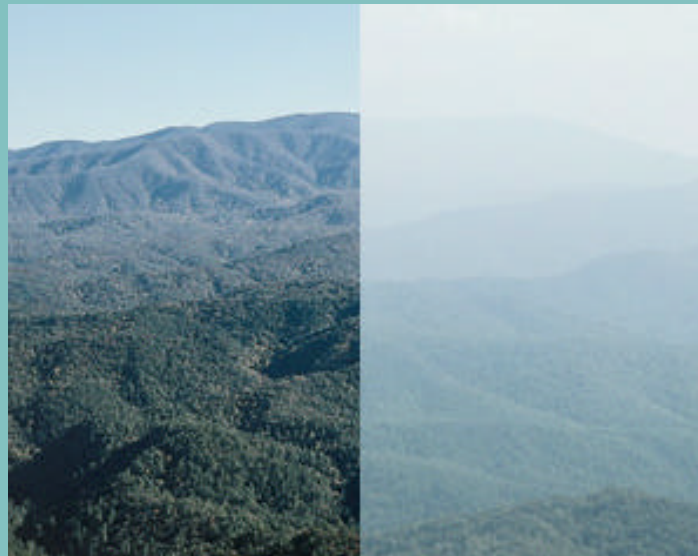
Ozone harms our lungs...

- Especially children, the elderly, those with respiratory problems, and those that spend a lot of time outdoors
- Aggravates asthma
- Reduces lung capacity
- Increases susceptibility to illnesses like pneumonia and bronchitis
- Can cause permanent lung damage after long-term exposure



Ozone harms our economy...

- Poor air quality in the Smoky Mountains keeps tourists, and their dollars, away
- Economic development may be restricted
- Federal highway funds can be lost

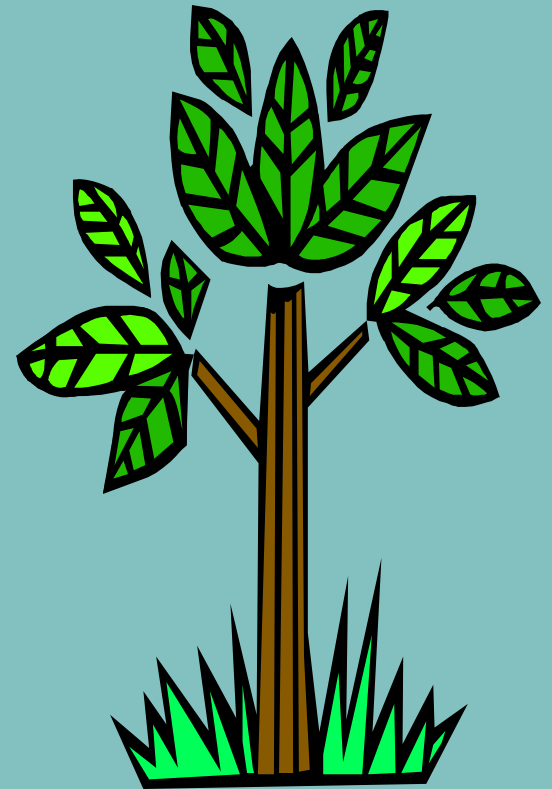


The Smoky Mountains on a clear day and a smoggy day

Source: National Park Service

Ozone harms our environment...

- Reduces crop and forest yields
- Makes plants more susceptible to disease, insects, other pollutants, and harsh weather
- Damages the leaves of trees and other plants, ruining the appearance of cities, national parks, and recreation areas

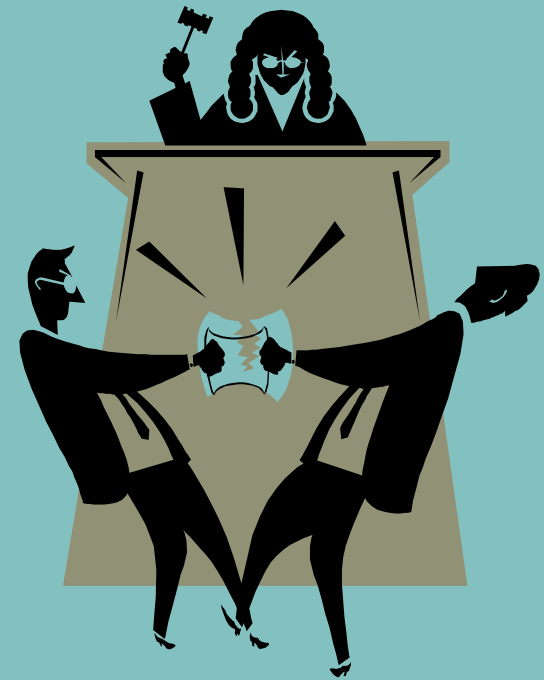


■ How is ozone regulated?

- Clean Air Act sets NAAQS
- Current one hour standard: 120 ppb
- Pending eight hour standard: 80 ppb
- State, local air agencies and National Park Service run ozone monitors
- EPA designates non-attainment

How did the new, eight hour ozone standard come to be?

- Originally promulgated in 1997
- Fought all the way to the Supreme Court
- Court upheld part, remanded part to EPA
- EPA is finalizing its revised implementation guidance as part of the remand



■ Tell me more...

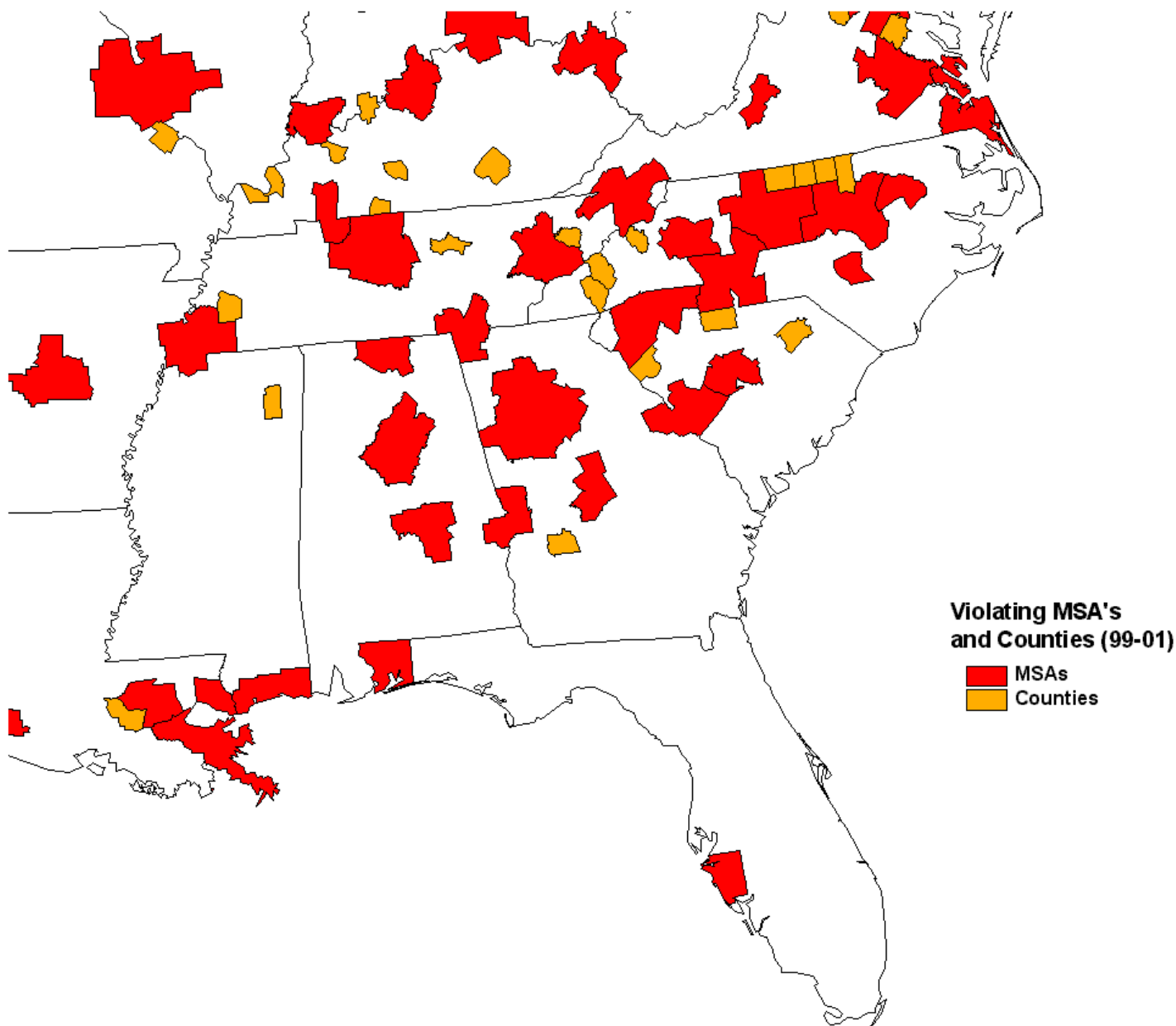
- The new standard is much more stringent
- Many areas of Tennessee will not meet the new standard without additional controls
- Industrial controls will no longer be sufficient: research indicates emissions from vehicles will need to be reduced
- State and federal government will not be able to attain standard without local support and participation

What is “nonattainment”?

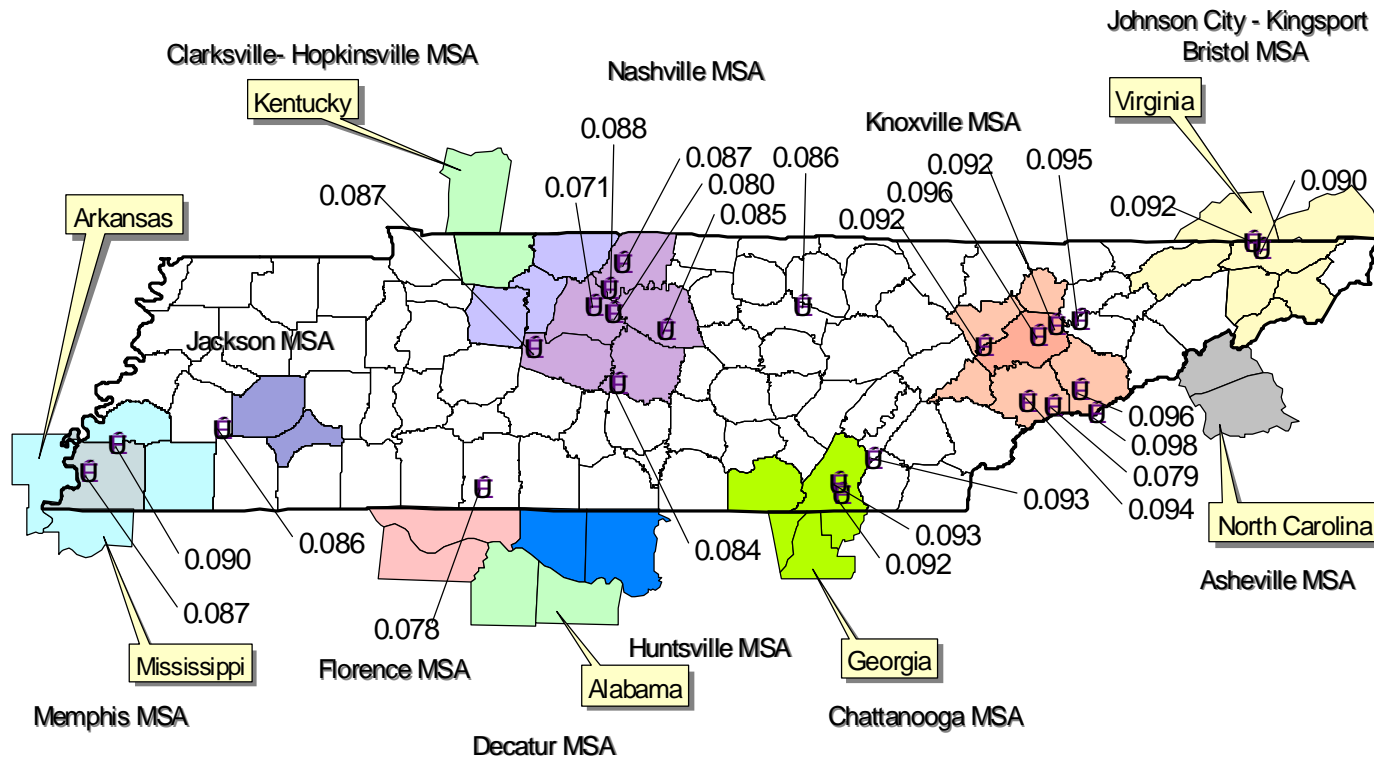
- Non-attainment means ozone levels exceed standards and the air is not always healthy to breathe
- Non-attainment also puts our economy in jeopardy



MSA's and Counties Violating 8-Hr Ozone NAAQS



Tennessee 8 Hour Ozone Design Values By MSA 2000 - 2002



Notes:
 Design values in parts per million.
 Old 1-hr nonattainment areas in hatched areas.
 A county with a design value greater than or equal to 0.085 ppm is violating the standard.

 Monitoring Sites With an 8 Hr Ozone DV





What happens under traditional non-attainment?

- ~June 2004: EPA designates non-attainment counties
- Tougher permitting for industry
- Transportation conformity for federally funded roads
- SIP to attain standard submitted by 2007-2008
- Attainment achieved between 2007-2019



COMMUNITY PROFILE

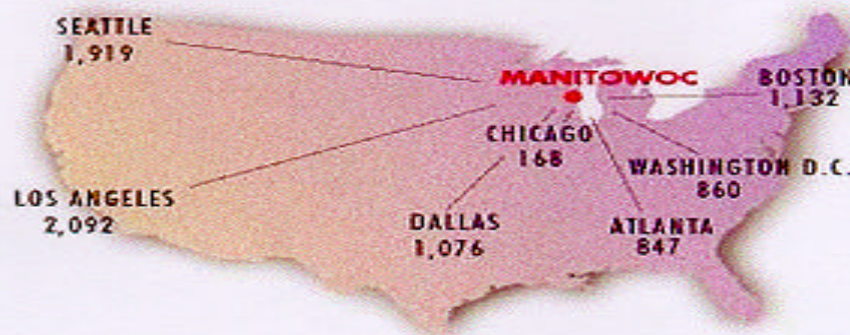
CLIMATE

- Average yearly temperature: 45 degrees
- Average daytime winter temperature: 29 degrees
- Average daytime summer temperature: 77 degrees
- Average rainfall: 29 inches
- Average snowfall: 54 inches
- Growing season: 150 days
- 1990 Federal Clean Air Act status: moderate non-attainment

"A facility wishing to move to Manitowoc County may be subject to additional requirements because this area is designated as a non-attainment air quality area by the federal government. Businesses needing assistance can call the Department of Commerce's Small Business Clean Air Assistance Program at (608) 264-6155 or (608) 267-9214."

Geography

- Average altitude is 631 feet above sea level.
- Highest point is 742.37 feet. (West Drive and S. 57th Street)
- Lowest point is 582.8 feet (Claypit Road and 21st Street)
- Latitude is: 44 degrees 5 minutes 20 seconds.
- Longitude is: 87 degrees 39 minutes 32 seconds



Actions Underway to Achieve Attainment

- NO_x SIP Call (reductions from TVA, large industrial boilers)
- Low sulfur gasoline
- Tier II vehicle standards

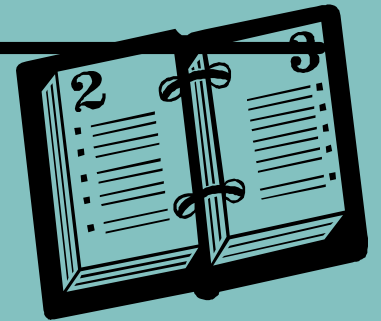
But, these may not be enough, and may take too long...



A New Way: Early Action Compacts

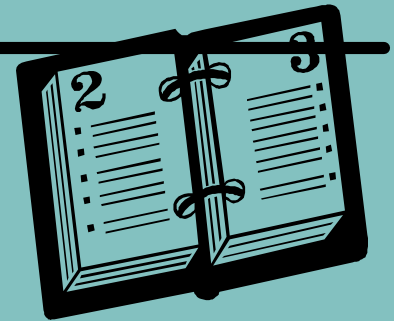
- Cleaner air quicker
- Local involvement and planning
- Broad stakeholder input
- Local controls in place by 2005
- EPA defers effective date of non-attainment
 - No transportation conformity
 - No permitting changes
 - More economic opportunity

Schedule for Tennessee



- Dec. 11, 2002: Tennessee Air Pollution Control Board signed resolution endorsing early action compact
- Dec. 16, 2002: County executives/mayors signed letters of endorsement
- Dec. 31, 2002: State submitted early action compact to EPA
- June 2003: Local areas will submit list of likely local measures
- 2004: EPA will designate compact areas as nonattainment, but will defer effective date

Schedule for Tennessee



- March 2004: Local areas will submit air quality improvement plan to state
- December 31, 2004: State adopts control measures into SIP & submits to EPA for approval
- March 2005: Implement emission reductions
- 2005-2007: Measure progress
- December 2007: Attainment achieved

Eight EACs in Tennessee

- **Middle Tenn. Region:** Davidson, Rutherford, Sumner, Williamson, Wilson, Cheatham, Dickson and Robertson counties
- **East Tenn. Region:** Anderson, Blount, Knox, Loudon, Sevier, Union and Jefferson counties
- **Chattanooga Region:** Hamilton, Marion and Meigs counties, Walker and Catoosa counties, Ga .

Eight EACs in Tennessee

- **Shelby County Region:** Shelby, Tipton and Fayette counties, Crittendon County, Ark., DeSoto County, Miss.
- **Tri-Cities Region:** Carter, Hawkins, Johnson, Sullivan, Unicoi and Washington counties
- **Haywood County**
- **Lawrence County**
- **Putnam County**



What have participating counties committed to?

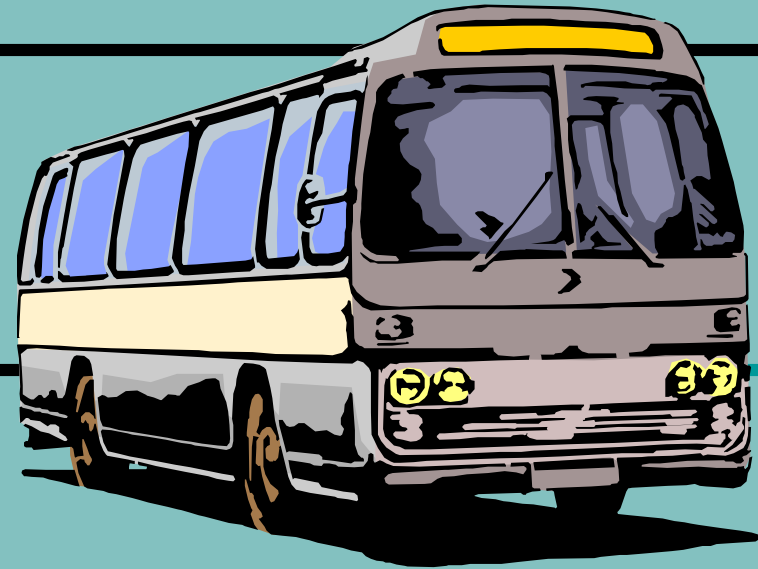
- To preserve the option to take the early action route
- The ability to “opt out” by Dec. 31, 2004
- Actively participate in selecting and agreeing on local control options
- State takes the lead on technical work

What are “local options”?

- Research shows additional stationary source controls will not be enough
- More cars, longer and more frequent trips have outstripped air quality improvements to vehicles
- Mobile source options
 - Emissions testing
 - Alternative fuels
 - Reformulated gasoline
 - Ethanol
 - Biodiesel
 - Reduced VMT



Get involved!



- Provide commuter choice benefits to employees
- Use alt. fuels in agency / company fleet
- Complete energy efficiency upgrades
- Start a van or car pool program
- Educate employees about their role
- Lead by example



Are There Questions or Comments?
